

STCG TANK SUBGROUP MEETING MINUTES

January 13, 1998

WELCOME/UPDATES (CATHY LOUIE)

Cathy welcomed the group and introduced Alex Stone (Ecology), Tom Tebb's replacement as Co-Chair of this Subgroup. Linda Fassbender read the action items from the last meeting. She also distributed a strawman Tank Subgroup Annual Calendar for members to review offline. This will be discussed at the next meeting.

Cathy mentioned the following upcoming events:

- Under Secretary Moniz is coming to Hanford and wants a TWRS briefing, including technology information.
- There is an ongoing GAO investigation on barriers to technology deployment.
- A supplemental analysis to the TWRS ROD is being done prior to the May 1 award of the Phase 1B Privatization contract.
- The TFA Mid-Year Review will be held in early March. This will be a "gate" review for selected technologies.
- EMSP high-level waste preproposals are due January 26.
- Privatization contract deliverables are due to DOE on January 26.
- The TFA response to the FY98 tank technology needs is underway this week.

Paul Scott provided an update on the status of the TDI tank proposals. He stated that Ken Gasper is working with Savannah River on the TDI activity.

TWRS RETRIEVAL PROGRAM TECHNOLOGY NEEDS (CRAIG WEST)

Craig made the presentation for Wendel Wrzesinski, who could not attend the meeting. There was a TPA milestone to demonstrate sluicing in the first single-shell tank (SST) in September 1997. However, the program is behind schedule. Sluicing will start in FY99, but it may not be the best technology for SSTs since so many are assumed to have already leaked (67 of the 149 SSTs). Therefore, PNNL is looking at sluicing enhancements. C-106 retrieval will start in about November 1998, and heel removal will start in about 2001. DOE and Ecology are currently involved in the TPA dispute resolution process over this issue.

Ed Fredenberg talked about EM-30 waste mobilization technology development at Savannah River. He showed a model called "Interim Subsurface Barriers for Underground Storage Tanks" that was developed by Steve Phillips, a former Westinghouse Hanford Company employee. It showed a horizontal, jet-grouted barrier beneath the tank and a polymer grout barrier curtain around the side walls of the tank. Directional/horizontal drilling technology could be used to install the barrier beneath the

tanks. It would probably be done for an entire tank farm rather than for just one tank. This is part of the Tank Closure Program rather than HTI.

TFA RESPONSE TO TWRS RETRIEVAL PROGRAM TECHNOLOGY NEEDS (BETTY CARTERET)

Betty made the presentation for Pete Gibbons, but detailed questions should go to him. The following FY97 retrieval technology needs and the TFA responses to them were discussed:

- RL-WT07 Remote Inspection of High-Level Waste Tanks
- RL-WT23 Establish Retrieval Performance Evaluation Criteria
- RL-WT24 Initial Waste Mobilization Methods Needed to Enhance Advanced Design Mixer Pump Retrieval for DST Waste Not Affected by Existing Mixer Pump Performance
- RL-WT25 Tank Leak Mitigation Systems for Underground Single-Shell Waste Storage Tanks
- RL-WT26 Alternative to Baseline Tank Waste Mixing Systems
- RL-WT27 High-Accuracy Psychrometric/Flow Measurements for Determining Tank Evaporation Rates

HTI UPDATE (BILL ROOT)

There is a very active tank cleaning industry, mainly for chemical tanks. About 35-40 companies have responded to HTI calls for proposals. All HTI work is "issue-driven" and focused on real problems. The HTI Program is ready to award two contracts to remove the SST heel in C-106 in two weeks.

In January 1997, four contracts were awarded for demonstration of alternative retrieval technologies: two arm-based technologies and two vehicle-based technologies. The work was completed in August 1997.

Tank AX-104 is being used to demonstrate characterization technologies. It was sluiced in the 1970s. The Light-Duty Utility Arm will be deployed in AX-104 in March 1998.

HTI is using the Hanford Cone Penetrometer to cut the cost of obtaining borehole samples in half. The cold demonstration will occur in June 1998, and the hot demonstration will occur by August 11. This technology could also save money at

other DOE sites with lots of rock. The Subgroup might be able to watch some of these technology demonstrations.

HOW THE EFFICIENT SEPARATIONS AND PROCESSING (ESP) CROSSCUTTING PROGRAM IS MEETING HANFORD'S TANK TECHNOLOGY NEEDS (JERRY HARNESS)

The purpose of this trip was for the ESP staff to get closer to the users. They usually rely on the Focus Areas to obtain the user needs.

None of the ESP projects are listed in the 2006 Plan technology tables. Funding will be cut if Hanford does not endorse these projects. The program wants our feedback, level of interest, suggested direction, or an indication that we can no longer support these projects. They would like to have STCG representatives attend their program reviews if possible.

Many of the ESP projects are alternative technologies, not baseline technologies. The user programs may not be ready to fully embrace them until they are proven.

WRAP-UP/FUTURE AGENDA ITEMS

The following potential future agenda items have been identified. Please review them and send your input on what you would like to see on the next meeting agenda to Linda Fassbender.

- Selection of TWRS technology-related problems to be addressed
- Subgroup annual calendar of activities
- TWRS Risk Management List and ties to technology solutions
- Potential technology tours

ACTION ITEMS

1. Check if Subgroup members can attend the TFA Mid-Year Review in March (Betty Carteret).
2. Provide an update on the Vadose Zone Partnering Activity (Barbara Harper).
3. Provide a presentation on the Multi-Sampling Lysimeter (Jim Divine).
4. Provide a status report on the subsurface grout barrier work (Ed Fredenberg).
5. Check status on DST inspection technology (Cathy Louie for DOE and Alex Stone for Ecology).
6. Get copies of ESP papers to Subgroup (Linda Fassbender).
7. Provide feedback to ESP regarding the official TWRS position on the alternative technologies they are developing (Cathy Louie).

MEETING ATTENDEES

Theresa Aldridge (DOE-RL)
John Appel (LMHC)
Gary Ballew (Pacific Rim Enterprise Center)
Bill Bonner (PNNL)
Batty Carteret (PNNL/TFA)
Jim Divine (Ecology/RCI)
Dirk Dunning (Oregon Office of Energy)
Linda Fassbender (PNNL)
Ed Fredenberg (LMHC)
Ken Gasper (LMHC)
Kurt Gerdes (DOE-HQ)
Roger Gilchrist (PNNL/TFA)
Marcus Glasper (DOE-RL)
Jim Hanson (DOE-RL)
Jerry Harness (ESP Crosscutting Program)
Dan Herting (NHC)
Jim Honeyman (LMHC/TWRS)
Cathy Louie (DOE-RL/TWRS)
Fred Mann (LMHC/TWRS)
Billie Mauss (DOE-RL)
Jim McGlynn (SAIC)
Loni Peurrung (PNNL)
Wade Riggsbee (Yakama Indian Nation)
Bill Root (Informatics)
Paul Scott (FDH)
Alex Stone (Ecology)
Ian Tasker (WPI)
Major Thompson (WSRC)
Jack Watson (ORNL/ESP Crosscutting Program)
Craig West (DOE/TWRS)

NEXT MEETING

The February Tank Subgroup meeting has been cancelled. The next meeting will be held on March 10, 1998 from 1:00 to 5:00 p.m., in the ISB-1 White Bluffs Room.